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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,148	06/29/2006	Michael F. Greene	20040136	9898
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BAE SYSTEMS PO BOX 868 NASHUA, NH 03061-0868			EXAMINER LAU, HOI CHING	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/585,148

**Applicant(s)**

GREENE ET AL.

**Examiner**

HOI C. LAU

**Art Unit**

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Interval Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 03, 2010 has been entered.

2. Claims 1- 20 have been examined.

### ***Response to Amendment***

3. Examiner acknowledges the changes made to the claims by applicant via amendment. The rejections of claims 1 and 8 under 32U.S.C. 112 from previous office action have been overcome as a result of amendment and remarks.

### ***Response to Arguments***

4. Applicant's arguments filed May 03, 2009 and April 14, 2010 have been fully considered but they are not persuasive. The followings are applicant's arguments:

a. Mason does not inherently teach or directly teach taking a standard transceiver and using a module to automatically convert audio information to a common format and frequency assigned to equipment operators on a temporary incident area network. Manson system will only work with specialized radios.

b. Nowhere of Mason shown add-on module to create the required interoperability.

The followings are response to applicant's arguments:

1. Regarding argument (a), Mason teaches an incident an incident area network system comprises the radios device automatically select communication bands/frequencies using signal information of the bands. As each responder individual arrives on scene they are immediately and automatically networked with each other and with the on-scene incident commander via their field device. The responder radios support peer-to-peer ad-hoc wireless networking, with multi-hop routing of data packets among the nodes. The responder radios use a Voice over Internet Protocol (VOIP) or other voice enabling technique and wireless local area network (WLAN) for data and audio communications. The responder radio transmits and receives voice and data messages on common frequencies for all responders in order to provide an integrated response by responders from all agencies present in the incident area. The responder radios self-configure the communication channels to optimize data transmission. The FASS device use on or more several RF technology and modulation formats (Para. 33,40-43, 46, 57, 60, 69, 70, 73-74, 79, 93) wherein the components of the responder radios support communication via any number of protocols and frequency bands **known in the art** [therefore would have been obvious to be standard protocols and frequency bands known in the art], specifically **802.1X standard, Bluetooth**, etc. Therefore, it would have been obvious to one of the ordinary skill in the art the transceiver as suggest by Mason is a standard transceiver. In addition, the standard criteria for one may or may

not be standard for another, thereby it would have been obvious the transceiver as suggest by Mason would be a standard components for the system of Mason. The claimed invention is indistinguishable from the Mason's system and applicant's arguments are not deemed persuasive.

2. Regarding argument (b), argued limitation is not specifically recited in the claims wherein the device/module is operated as a standalone unit in Figure 5, and 6B and the vehicle mobile radio as in Figure 6A in not in claim.

#### ***Claim Objections***

5. Claims 8-9 objected to because of the following informalities: the limitation "said transceiver" in lines 10-11 of claim 8 and line 1, 4-5 of claim 9, lack clarity of which transceivers [standard transceiver or handheld transceiver] are refereed in view of claim 8. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mason et al. (U.S. 2005/0001720).

Regarding **claim 1**, Mason teaches a system with use of an ad hoc temporary incident area network in which a module is coupled to a transceiver to transmit audio information available from the standard transceiver to a common format and frequency of the temporary incident area network without using direct sensor data transmission, apparatus for providing situational awareness to individuals coupled at nodes on the network, comprising: a sensor coupled to one of said modules for coupling sensor data to said module; a circuit (the internal circuitry for communication) at said module for uploading sensor data to said network; and, means at a node for downloading the sensor data carried by said network and for displaying said sensor data at said node, thus to reliably provide sensor data by using said network (fig. 1, 2, 4, 6; Para. 24-27, 31-36, 42, 46, 64, 73, 78, 93). This system would have been obvious automatically converts audio information available from the transceiver to a format and frequency assigned to equipment operating on the temporary incident area network (Para. 33, 40-43, 46, 57, 60, 69, 70, 73-74, 79, 93 and response to remark above) which is without using direct sensor data transmission because it is corresponding to different protocol and method and is separated from the direct sensor data transmission.

Mason further discloses an incident an incident area network system comprises the radios device automatically select communication bands/frequencies using signal information of the bands. As each responder individual arrives on scene they are immediately and automatically networked with each other and with the on-scene incident commander via their field device. The responder radios support peer-to-peer ad-hoc wireless networking, with multi-hop routing of data packets among the nodes.

The responder radios use a Voice over Internet Protocol (VOIP) or other voice enabling technique and wireless local area network (WLAN) for data and audio communications. The responder radio transmits and receives voice and data messages on common frequencies for all responders in order to provide an integrated response by responders from all agencies present in the incident area. The responder radios self-configure the communication channels to optimize data transmission. The FASS device use on or more several RF technology and modulation formats (Para. 33,40-43, 46, 57, 60, 69, 70, 73-74, 79, 93) wherein the components of the responder radios support communication via any number of protocols and frequency bands known in the art [therefore would have been obvious to be standard protocols and frequency bands known in the art], specifically 802.1X standard, Bluetooth, etc. Therefore, it would have been obvious to one of the ordinary skill in the art the transceiver as suggest by Mason is a standard transceiver. In addition, the standard criteria for one may or may not be standard for another, thereby it would have been obvious the transceiver as suggest by Mason would be a standard components for the system of Mason. The implementation of such standard protocols and frequency bands would have been predictable and results in a standard transceiver. Therefore, the claimed subject matter would have been obvious to person having ordinary skill in the art at the time the invention was made.

Regarding **claim 2**, Mason meets the limitation of claim and further shows the apparatus including a camera at said module for providing image signals as an output thereof, said uploading circuit uploading said image signals (Para. 86, 119).

Regarding **claim 3-4**, Mason meets the limitation of claim and further shows the image signals include video signals (Para. 119) wherein such video signals have been obvious to one of ordinary skill in the art is provided by the camera because the camera device as shown by Mason could be an video camera or still image camera, therefore provide video data as recite by Mason and still picture signal as a conventional still image capturing camera in the art since they an alternative output and would be using one known technique to improve similar device.

Regarding **claim 5**, Mason meets the limitation of claim and further shows the sensor is taken from the group consisting of location sensors, oxygen tank sensors, gas sensors, HAZMAT sensors, photo-ionization sensors and biometric sensors (Para. 86)

Regarding **claim 6**, Mason meets the limitation of claim and further shows an incident commander terminal having a display coupled to said node and wherein the sensor data transmitted over said network is displayed for said incident commander at the associated incident commander display terminal, thereby to provide said incident commander with situational awareness based on said sensor data (fig. 1, 2, 4, 6; Para. 24-27, 31-36, 42, 46, 64, 73, 78).

Regarding **claim 7**, Mason meets the limitation of claim and further shows the sensor data includes information relating to the location of said module and wherein said display includes a map and an icon indicating the location of said module (fig. 1, 2, 4, 6; Para. 24-29, 33, 41, 44, 45).



7. Claims 8, 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mason et al. (U.S. 2005/0001720), in view of Schlager et al. (US 2003/0102972).

Regarding **claim 8**, Mason teaches an ad hoc temporary incident area network having equipment operating thereon: modules at nodes of said incident area network for automatically converting verbal communications from a standard transceiver to a frequency and format (see rejection of claim 1) associated with the "temporary incident area network, man-portable apparatus for providing situational awareness to an individual at a node on said network, comprising:

a handheld transceiver having audio in, audio out; and, a mini module carried or coupled by said handheld transceiver coupled to said outputs for at least automatically converting verbal communications associated with said transceiver to the common frequency and format compatible with said network, said mini module including circuits for transmitting said verbal communications between modules over said network (fig. 1, 2, 4, 6; Para. 24-27, 31-36, 42, 46, 64, 73, 78).

Mason further discloses an incident an incident area network system comprises the radios device automatically select communication bands/frequencies using signal information of the bands. As each responder individual arrives on scene they are immediately and automatically networked with each other and with the on-scene incident commander via their field device. The responder radios support peer-to-peer ad-hoc wireless networking, with multi-hop routing of data packets among the nodes. The responder radios use a Voice over Internet Protocol (VOIP) or other voice enabling technique and wireless local area network (WLAN) for data and audio communications.

The responder radio transmits and receives voice and data messages on common frequencies for all responders in order to provide an integrated response by responders from all agencies present in the incident area. The responder radios self-configure the communication channels to optimize data transmission. The FASS device use on or more several RF technology and modulation formats (Para. 33,40-43, 46, 57, 60, 69, 70, 73-74, 79, 93) wherein the components of the responder radios support communication via any number of protocols and frequency bands known in the art [therefore would have been obvious to be standard protocols and frequency bands known in the art], specifically 802.1X standard, Bluetooth, etc. Therefore, it would have been obvious to one of the ordinary skill in the art the transceiver as suggest by Mason is a standard transceiver. In addition, the standard criteria for one may or may not be standard for another, thereby it would have been obvious the transceiver as suggest by Mason would be a standard components for the system of Mason. The implementation of such standard protocols and frequency bands would have been predictable and results in a standard transceiver. Therefore, the claimed subject matter would have been obvious to person having ordinary skill in the art at the time the invention was made.

It does not explicitly mention the two-way radio device incorporates a push-to-talk outputs available external thereto.

However, such push-to-talk outputs available externally would be a well-known feature for two-way radio device and Schlager specific mention a communication device has a push-to-talk arrangement thereof, therefore would have been obvious to one of

ordinary skill in the art at the time of invention of incorporate push-to-talk output with apparatus as taught by Mason because it would provide manually activation for voice communication.

Regarding **claim 10**, the combination meets the limitation of claim and Mason further shows a sensor coupled to said mini module, said mini module including a circuit for uploading data from said sensor to said network (fig. 1, 2, 4, 6; Para. 24-27, 31-36, 42, 46, 64, 73, 78).

Regarding **claim 11**, the combination meets the limitation of claim and Mason further shows a predetermined number uniquely identifying said mini module, and wherein said uploading circuit uploads said unique identifying number (Para. 72, 78, 94, 98, 110-111).

Regarding **claim 12**, the combination meets the limitation of claim and Mason further shows a camera coupled to said mini module and wherein said uploading circuit includes a circuit for uploading the output from said camera to said network (Para. 86, 119).

Regarding **claim 13**, the combination meets the limitation of claim and Mason further shows the image signals include video signals (Para. 119) wherein such video signals have been obvious to one of ordinary skill in the art is provided by the camera because the camera device as shown by Mason could be an video camera or still image camera, therefore provide video data as recite by Mason and still picture signal as a conventional still image capturing camera in the art since they an alternative output and would be using one known technique to improve similar device.

Regarding **claim 14**, the combination meets the limitation of claim and Mason further shows including wearable sensors coupled to said mini module adapted to be worn by the individual using said transceiver, said sensors coupling data collected by a sensor that relates to events in the immediate vicinity of said individual to said mini module, whereby sensor data uploaded to said network and available at a node thereof is downloadable to said node for providing situational awareness of conditions in the incident scene at said individual, thus to provide situational awareness based on sensed conditions at said individual (Para. 34, 25, 85, 89, 93).

Regarding **claim 15**, the combination meets the limitation of claim and Mason further shows the sensor includes a camera, whereby images in the vicinity of said individual are transmitted over said network to said node to support situational awareness (Para. 34, 86, 119, 25, 85, 89, 93).

Regarding **claim 16**, the combination meets the limitation of claim and Mason further shows the mesh wireless network for coupling said sensor to said mini module, whereby said sensor can be worn by said individual and wirelessly connected to said mini module. The Mesh wireless network would have been obvious to one of ordinary skill in the art at the time of invention is implemented as a local wireless network in respect to the system and the distance or use between the components.

Regarding **claim 17**, the combination meets the limitation of claim and Mason further shows the wireless network includes a Blue Tooth network (Para. 34, 86, 119, 25, 85, 89, 93).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mason et al. (U.S. 2005/0001720), in view of Schlager et al. (US 2003/0102972), further in view of Yang (US 2004/0185902).

Regarding **claim 9**, the combination meets the limitation of claim, but does not explicitly mention the handheld transceiver includes a battery and an external power connection contact and wherein said mini module includes a power input connection contact coupled to said external power connection contact for the powering of said mini module from the battery of said handheld transceiver.

In the analogous art of communication system, Yang discloses a handheld communication transceiver module [for example, cell phone] includes a battery and an external power connection contact and mini module [input and output interface unit] includes a power input connection contact coupled to said external power connection contact for the powering of said mini module from the battery of said handheld transceiver during the combination mode if only one of the module [for example, the main unit] is provided with battery power (Fig. 1-2, Para. 5, 8-9, 11).

It would have been obvious to one of ordinary skill in the art at the time of invention to implement power connection between the two units as suggest by Yang because it would allow one of the unit serves as the energy source in order to reduce the number of the battery components of the system during the combine configuration. In addition, it would allow the mini module as a separatable device which enhance replacement of device if failure of any electronic components. Further the infrastructure for the functionality between the different electronic module, for example, the mini

module and the handheld transceiver in respect to the integration or separate-in-part would depend on the configuration of the system based upon the specific application.

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mason et al. (U.S. 2005/0001720), in view of Schlager et al. (US 2003/0102972), further in view of Fors et al. (US 7,289,825).

Regarding **claim 18**, the combination meets the limitation of claim and Mason further shows a headset communicating with said mini module, whereby verbal communications can be established between said mini module and said network regardless of said handheld transceiver (fig. 1, 2, 4, 6; Para. 59, 73, 78), but does not explicitly mention the headset is wireless communicating with the mini module.

In the analogous art, Fors discloses a wireless radio communication device 110 is wireless communicating with a wireless headset and configured to verbal communicate with different terminals on the network (Fig. 1-3; col. 4, line 59 - col. 5, line 38; col. 9, lines 38-53).

It would have been obvious to one of ordinary skill in the art at the time of invention to associate the wireless headset as suggest by Fors to the headset components as shown by Mason, so the user could freely operates the headset without the inconvenience of any wired connection between the mini module and the headset. One of ordinary skill in the art could have pursued the known potential solutions with a reasonable expectation of success by using either wired or wireless connection.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOI C. LAU whose telephone number is (571)272-8547. The examiner can normally be reached on M- F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davetta Goins can be reached on (571)272-2957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hoi C Lau/  
Examiner, Art Unit 2612